

mrg3 LCPIWYHCHRPHTSTMCAVIWVLSLLICILNSYFCGFLNTQYKNENGCLALNFFTAAYLMFLFVVLCLSSLALVA
 mrg4 LCPIWYHCHRPHTSTMCAAIWVLSLLICILNSYFCGVLHTRYDNDNGCLATNIFTASYMIFLLVVLCLSSLALLA
 mrg5 LCPIWYHCHRPHTSTMCAVIWVLSLLICILDGYFCGYLDNHYFNYSVCQAWDIFIGAYPMFLFVVLCLSTLALLA
 mrg6 LCPIWYHCHRPHTSTMCAVIWVLSLLICILNSYFCGFLNTQYKNENGCLALSFFTAAYLMFLFVVLCLSSLALVA
 mrg7 LCPTWYRCHRPVHTSTMCAVIWVLSLLICILNSYFCGFLNTQYKNENGCLALSFFTAAYLMFLFVVLCLSSLALLA
 mrg8 LCPIWYRCHRPHTSTMCAVIWVLSLLICILNSYFCGFLNTQYKNENGCLALSFFTAAYLMFLFVVLCLSSLALLA
 Human1 LWPIWYRCHRPHTSTMCAVIWVLSLLICILNSYFCGFLNTQYKNENGCLALSFFTAAYLMFLFVVLCLSSLALLA
 Human2 LWPIWYRCHRPHTSTMCAVIWVLSLLICILNSYFCGFLNTQYKNENGCLALSFFTAAYLMFLFVVLCLSSLALLA

mrg3 RLFCGTGQIKLTRLYVTIMLSILVFLLCGLPFGIHWFLLFKIKDDFHVFDLGFYLASVVLTAINSCANPIIYFFVVG
 mrg4 RLFCGAGQMKAYQFHVTTLLTLVFLLCGLPIAIYCFLLFKIKGDFHVDVNLVLALEVLTAINSCANPIIYFFVVG
 mrg5 RLFCGARNMKFTRLFVTIMLTIVLFLLCGLPWGITWFLLFWIAPGVFPDYSPLL---VLTAINSCANPIIYFFVVG
 mrg6 RLFCGARNMKFTRLFVTIMLTIVLFLLCGLPWGITWFLLFWIAPGVFPDYSPLL---VLTAINSCANPIIYFFVVG
 mrg7 RLFCGAGQMKLTRFHVTTLLTLVFLLCGLPFIYCIILFKIKDDFHVLDVNLVLALEVLTAINSCANPIIYFFVVG
 mrg8 RLFCGAGKKKFTRLFMTIMVTILVFLLCGLPLGFLWLLPWIEGGSILDYRFFLASLVLTAINSCANPIIYFFVVG
 human1 RILGSRKIPLTRLYVTILLTVLFLLCGLPFGIQFFLFLWIHVDRVLFCHVHLVSIFLSALNSSANPIIYFFVVG
 human2 RILGSRGLPLTRLYLTILLTVLFLLCGLPFGIQWFLILWIWKDSDVLFCHIHVPVSVLSSLNSSANPIIYFFVVG

FIG. 1

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FIG. 1A,

13

TMA1

51

[illegible]

TM2

5

TM3

mr3
mr4
mr5
mr8
mr9
mr10
mr11
mr12

C2

TM4

mr93
mr94
mr95
mr98
mr99
mr910
mr911
mr912

E3

TM5

C3

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mr93 | G | F | L | N | T | Q | X | K | N | N | E | N | G | C | L | A | L | N | F | T | A | A | Y | I | M | F | F | V | L | C | S | S | I | A | L | V | A | R | L | F | C | G | T | G | I | K | |
| mr94 | A | V | L | H | T | R | Y | Y | N | N | D | N | V | C | L | A | T | N | F | T | A | S | Y | N | I | F | F | V | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K |
| mr95 | G | Y | L | D | N | H | Y | Y | S | N | Y | S | V | C | L | A | W | N | F | T | A | Y | L | M | F | F | V | V | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K |
| mr98 | H | F | F | G | P | K | Y | Y | S | N | I | S | V | C | L | A | T | N | F | T | A | Y | L | M | F | F | V | V | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K |
| mr99 | S | F | L | D | I | N | Y | Y | S | N | N | S | V | C | L | A | S | N | F | T | A | Y | L | M | F | F | V | V | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K |
| mr10 | G | F | L | D | T | K | Y | Y | S | N | D | Q | G | C | L | A | M | N | F | T | A | Y | L | M | F | F | V | V | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K |
| mr11 | D | F | F | G | T | K | L | Y | S | N | D | Y | V | C | L | A | S | N | F | T | A | Y | L | M | F | F | V | V | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K |
| mr12 | N | F | S | S | P | K | Y | V | S | N | N | N | V | C | L | A | S | H | I | F | T | A | Y | P | I | F | F | V | L | C | S | S | I | A | L | L | A | R | L | F | C | G | A | G | N | K | |

TM6

E4

[illegible]

TM7

C4

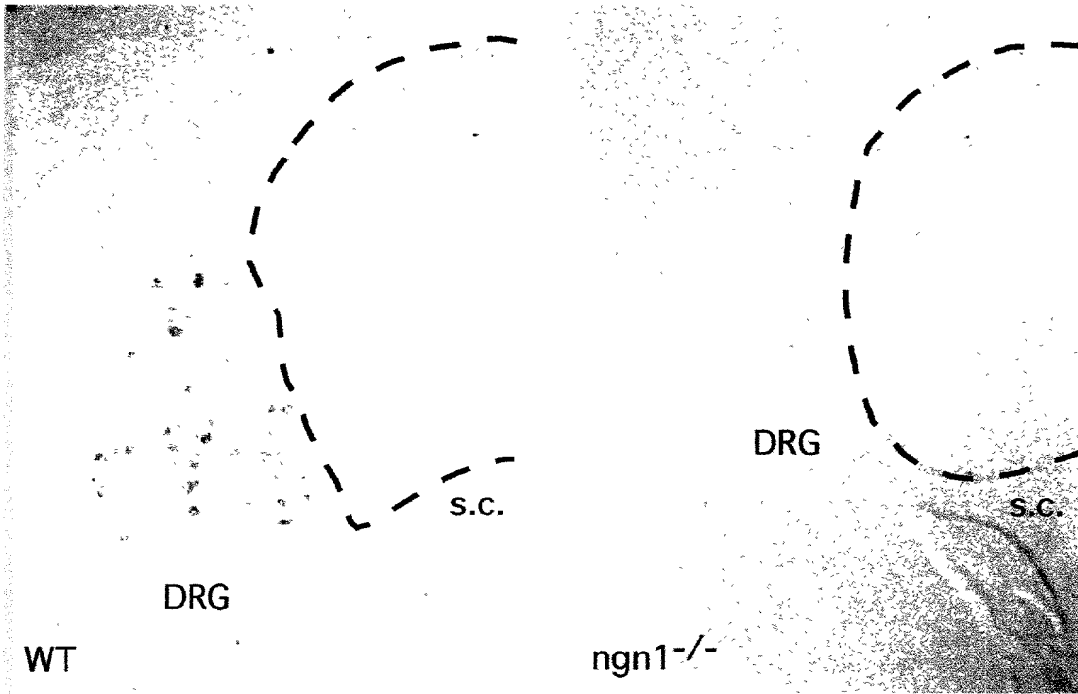
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mr93 | T | A | I | N | S | C | A | N | P | I | I | Y | F | V | G | S | F | R | H | R | L | K | H | Q | T | L | K | M | V | L | Q | N | A | L | Q | D | T | P | E | T | A | K | I | M | V | E | M | S | R | | |
| mr94 | T | A | I | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | Q | T | L | K | H | Q | T | L | K | M | V | L | Q | S | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R |
| mr95 | T | A | I | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | Q | T | L | K | H | Q | T | L | K | M | V | L | Q | S | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R |
| mr98 | T | A | I | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | Q | T | L | K | H | K | T | L | K | M | V | L | Q | S | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R |
| mr99 | T | A | I | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | Q | T | L | K | H | K | T | L | K | M | V | L | Q | S | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R |
| mr910 | T | A | I | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | R | L | K | H | K | T | L | K | M | V | L | Q | S | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R | |
| mr911 | T | A | I | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | R | L | K | H | K | T | L | K | M | V | L | Q | S | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R | |
| mr912 | T | V | V | N | S | C | A | N | P | I | I | Y | F | F | V | G | S | F | R | H | R | L | K | Q | Q | T | L | K | M | V | L | Q | R | A | L | Q | D | T | P | E | T | A | E | N | M | V | E | M | S | R | |

| | | | | | |
|-------|---|---|---|---|---|
| mrg3 | S | K | S | E | P |
| mrg4 | N | K | A | E | P |
| mrg5 | N | K | A | E | P |
| mrg8 | S | K | A | E | P |
| mrg9 | N | I | P | K | P |
| mrg10 | N | K | A | E | L |
| mrg11 | I | K | A | E | Q |
| mrg12 | S | K | A | E | P |

FIG. 1A₃

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mrg3



mrg4

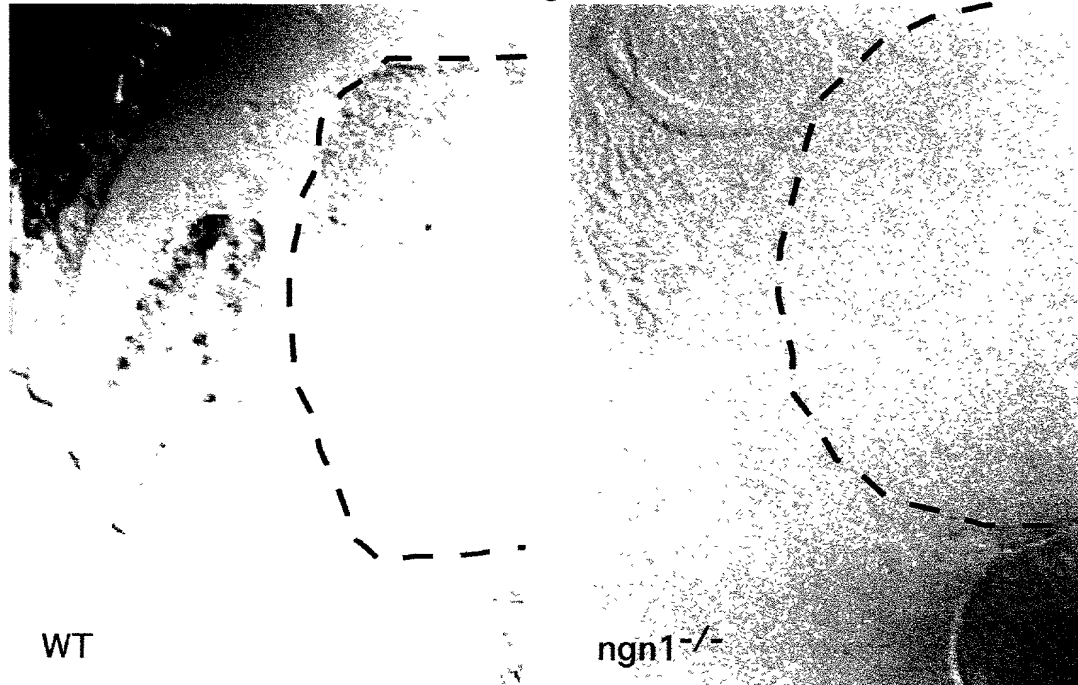


FIG. 2

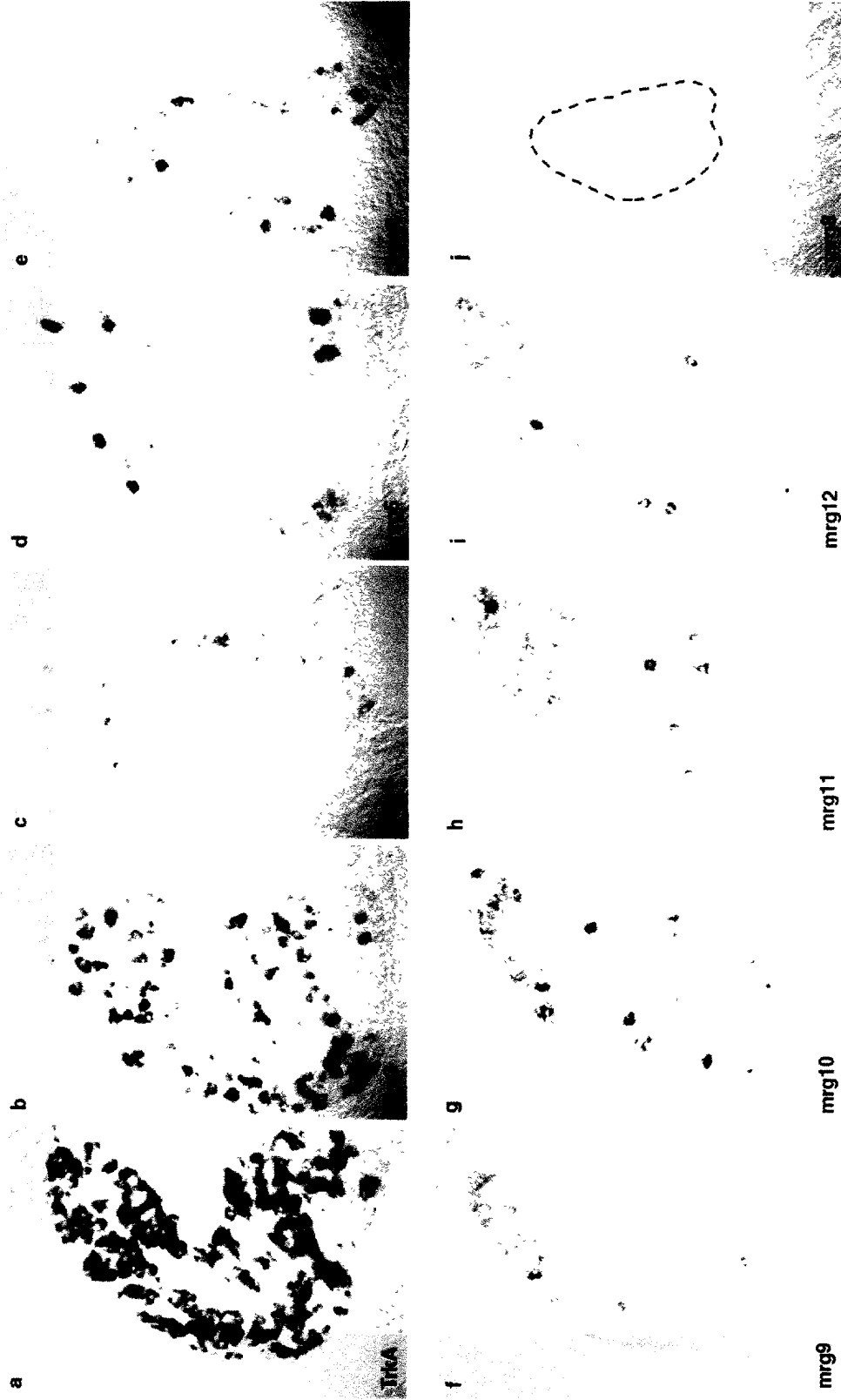


FIG. 2A

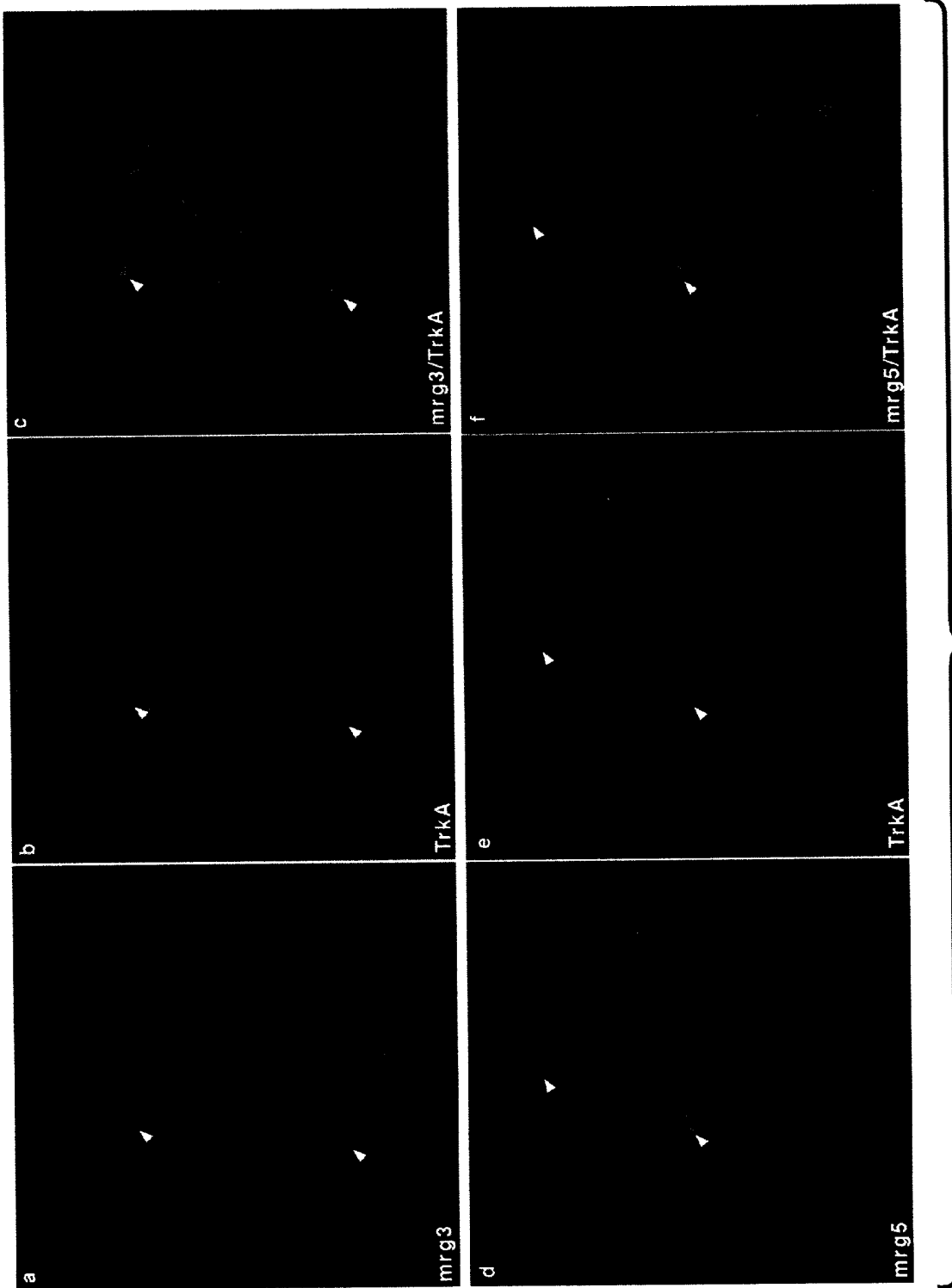


FIG. 2B

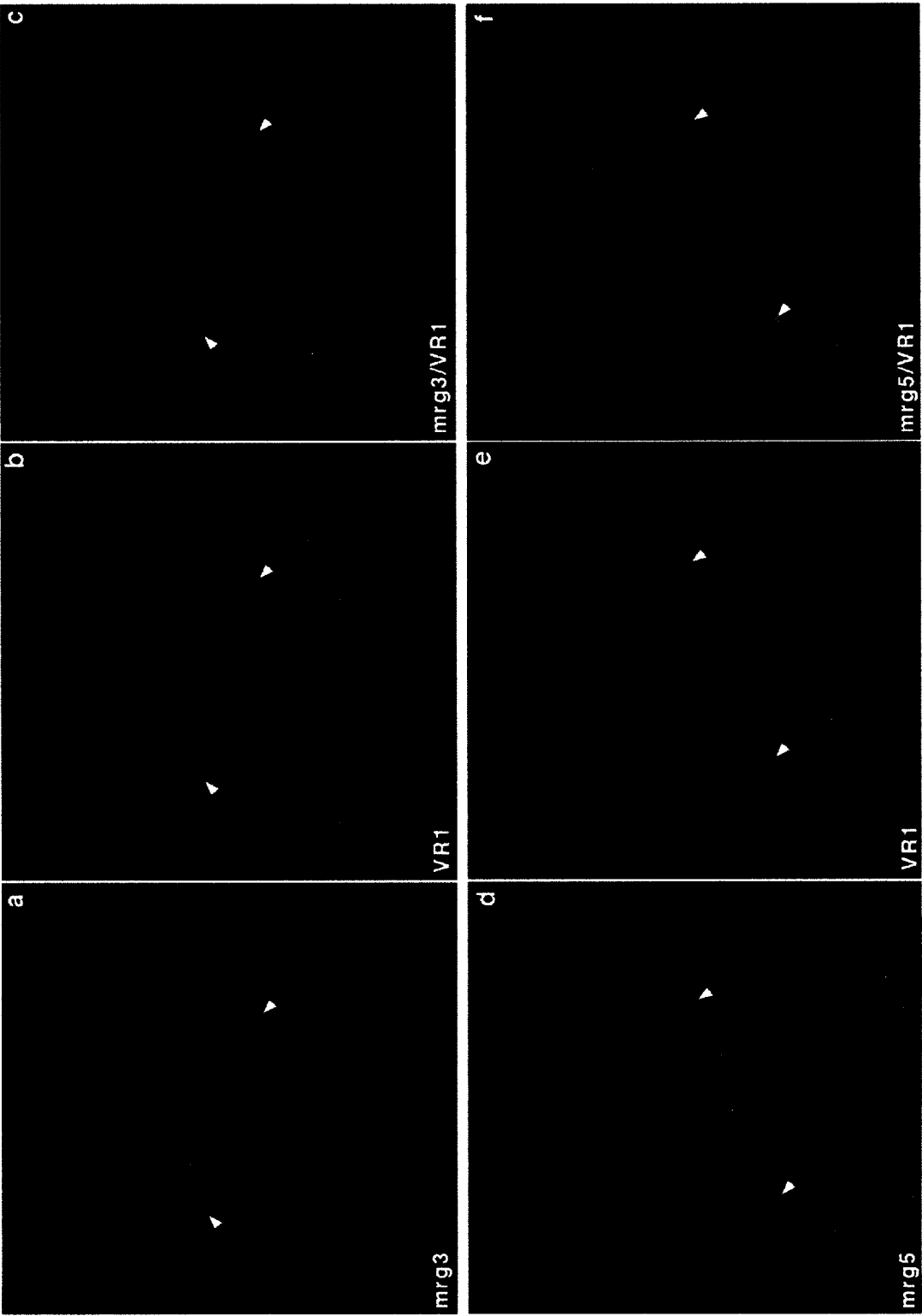


FIG. 2C

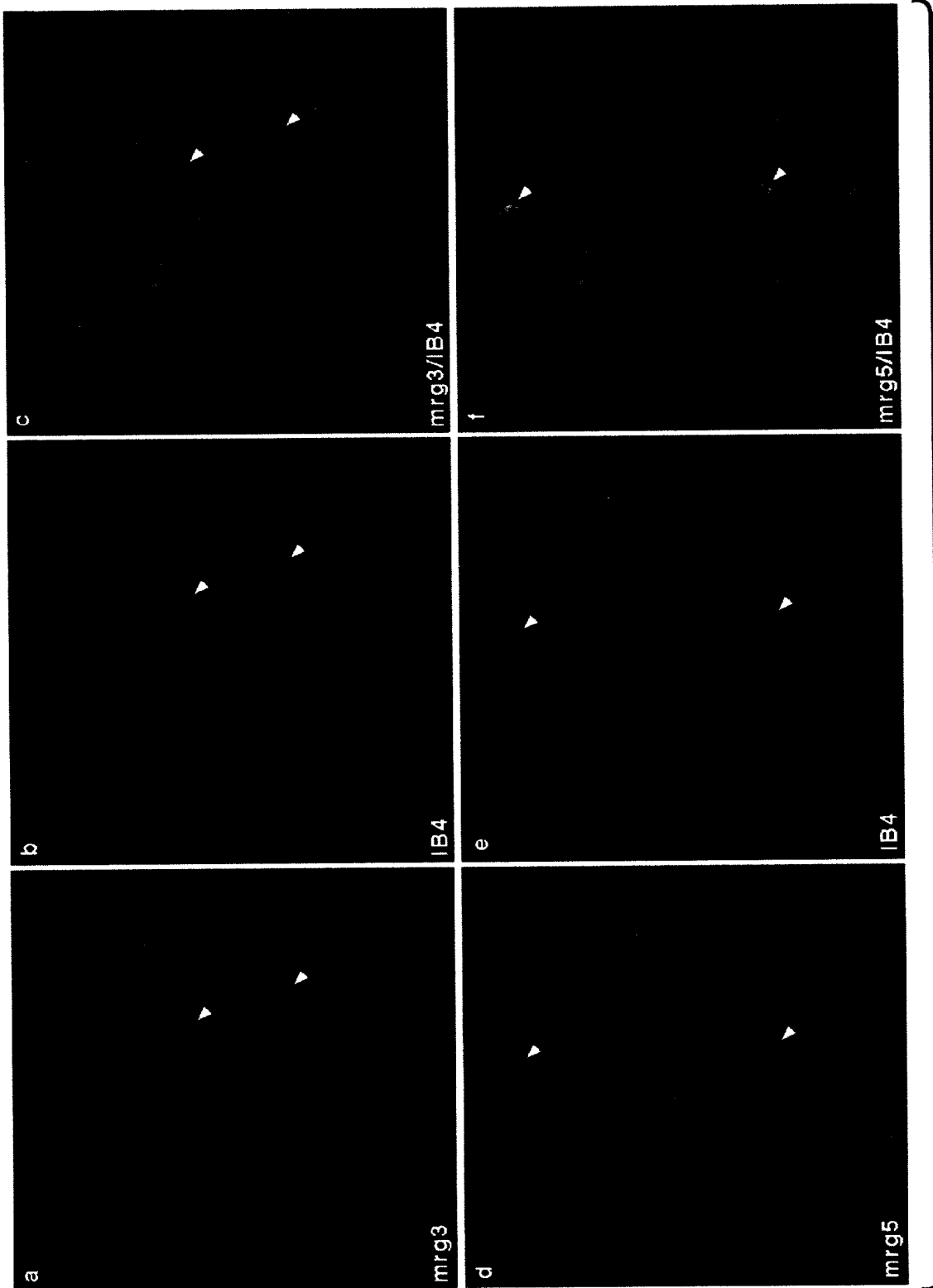


FIG. 2D

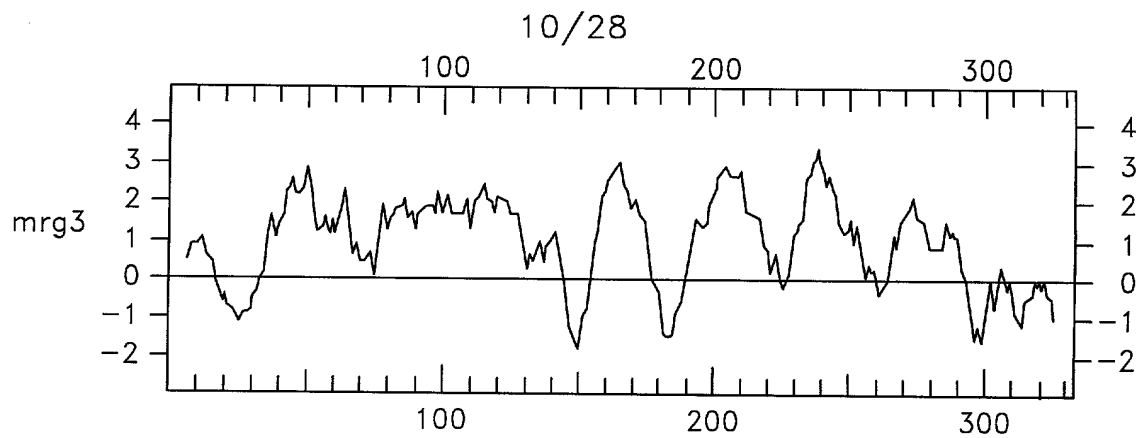


FIG. 3A

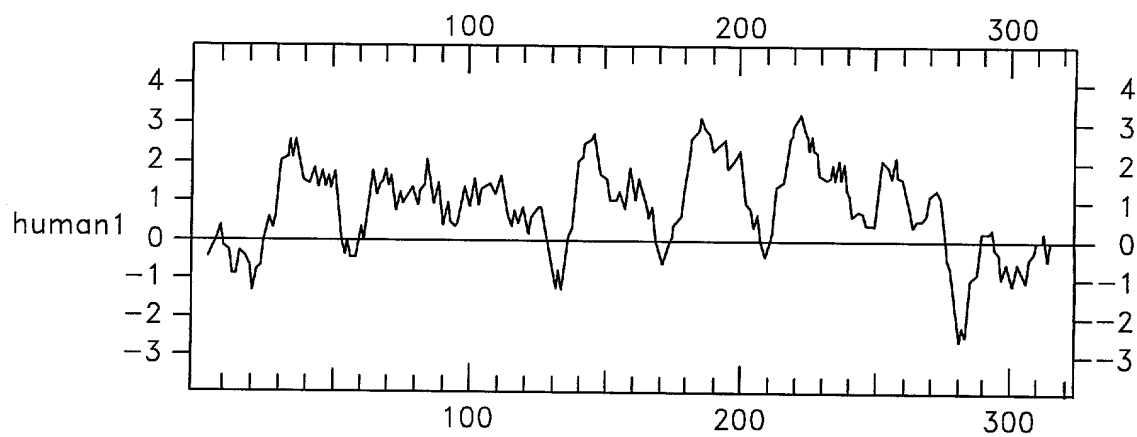


FIG. 3B

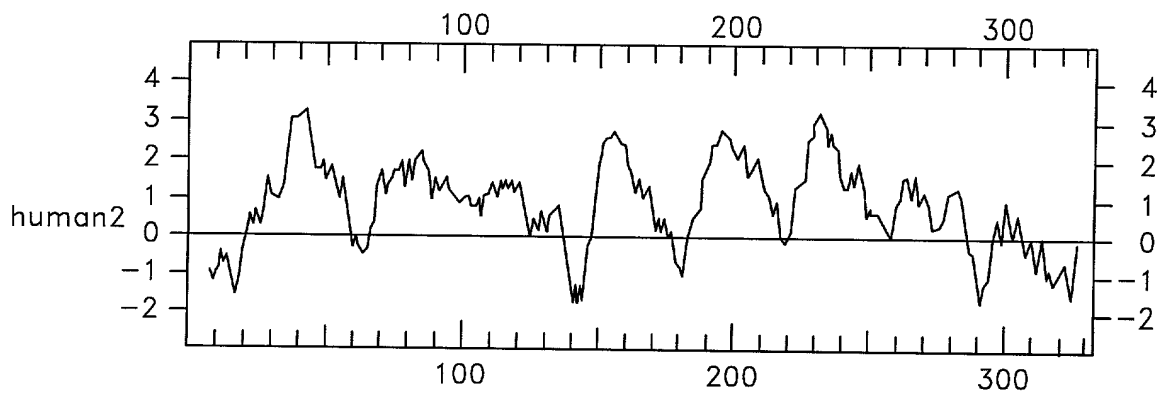


FIG. 3C

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mouse drg12

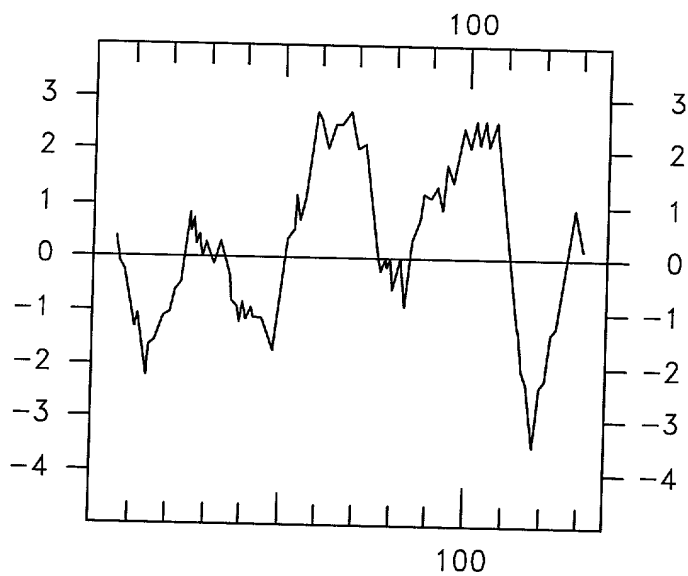


FIG. 4A

human drg12

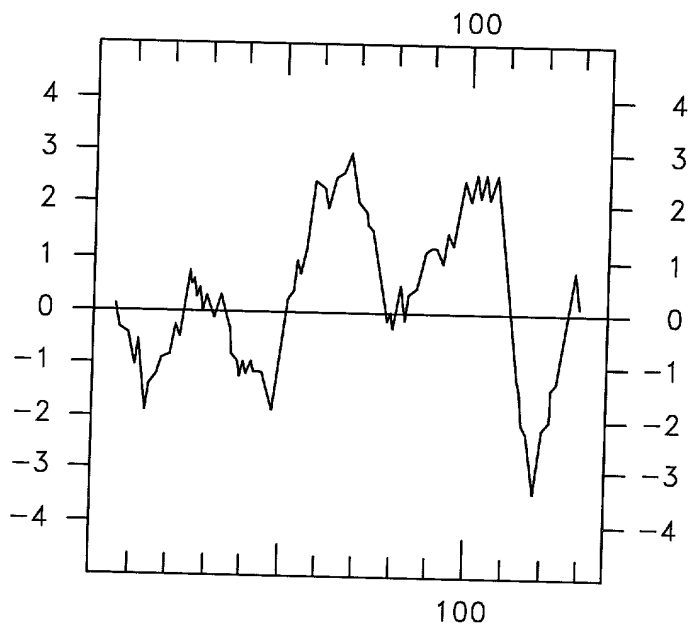


FIG. 4B

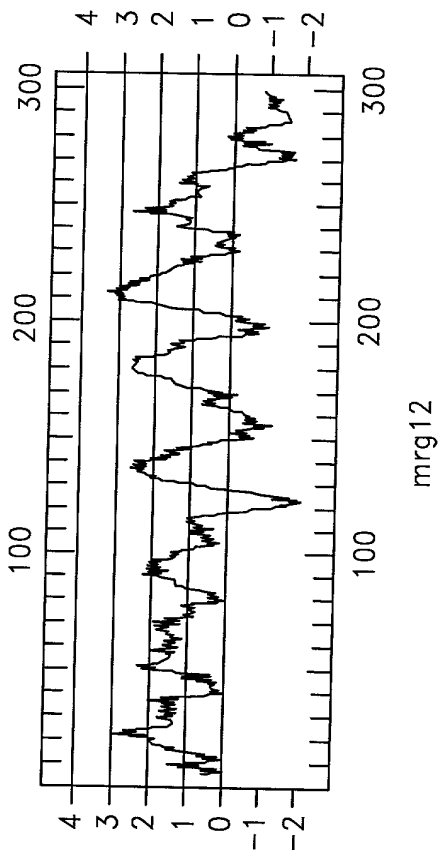
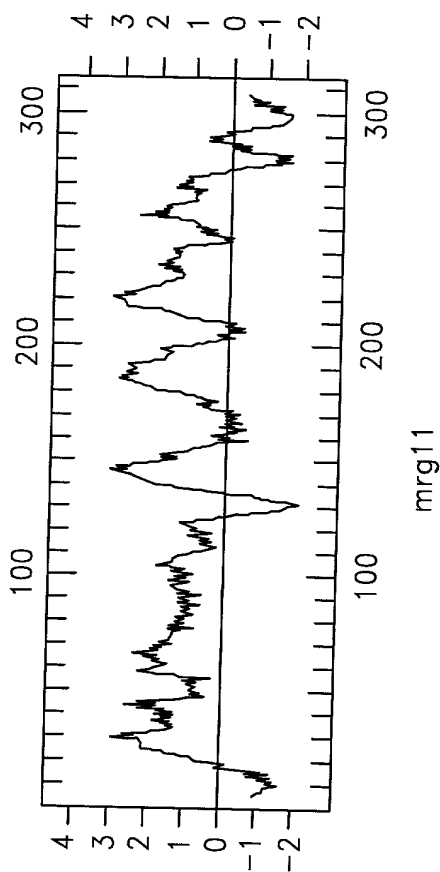
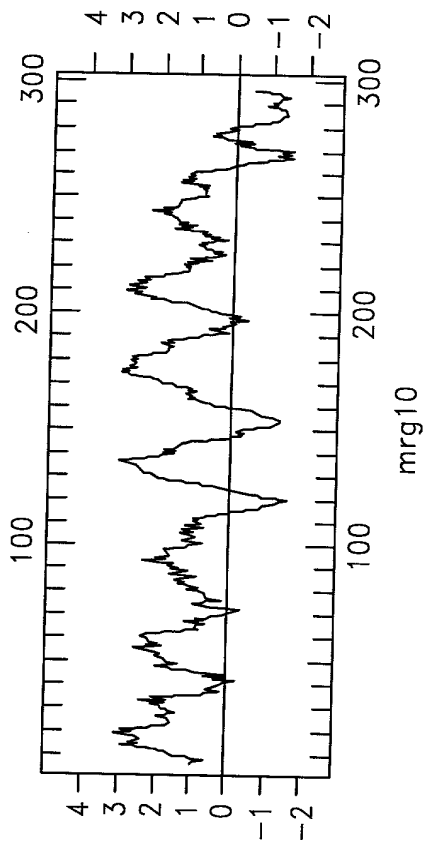
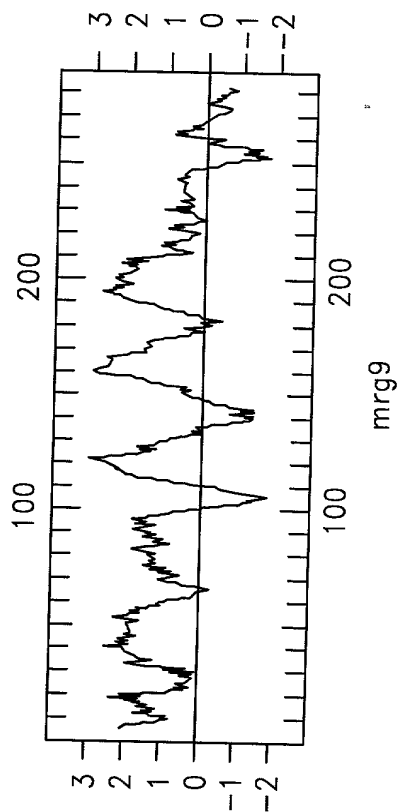


FIG. 5

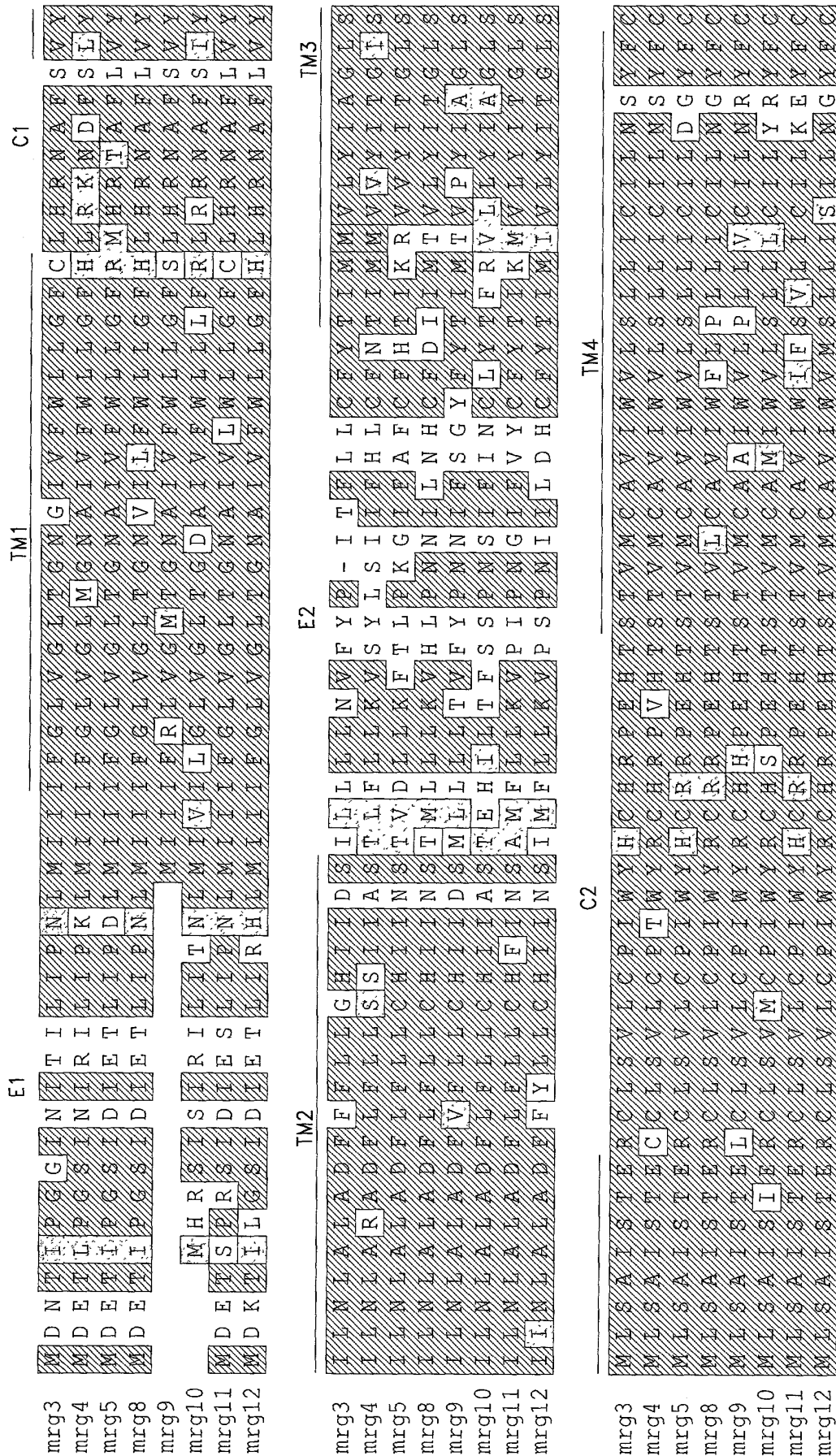


FIG. 6A₁

E3

TM5

C3

mrgr3
 mrgr4
 mrgr5
 mrgr8
 mrgr9
 mrgr10
 mrgr11
 mrgr12

TM6

E4

[illegible]

TM7

C4

mrg3
 mrg4
 mrg5
 mrg8
 mrg9
 mrg10
 mrg11
 mrg12

| | | | | | |
|-------|---|---|---|---|---|
| mr93 | S | K | S | E | P |
| mr94 | N | K | A | E | P |
| mr95 | N | K | A | E | P |
| mr98 | S | K | A | E | P |
| mr99 | N | I | P | K | P |
| mr910 | N | K | A | E | L |
| mr911 | I | K | A | E | Q |
| mr912 | S | K | A | E | P |

FIG. 6A₃

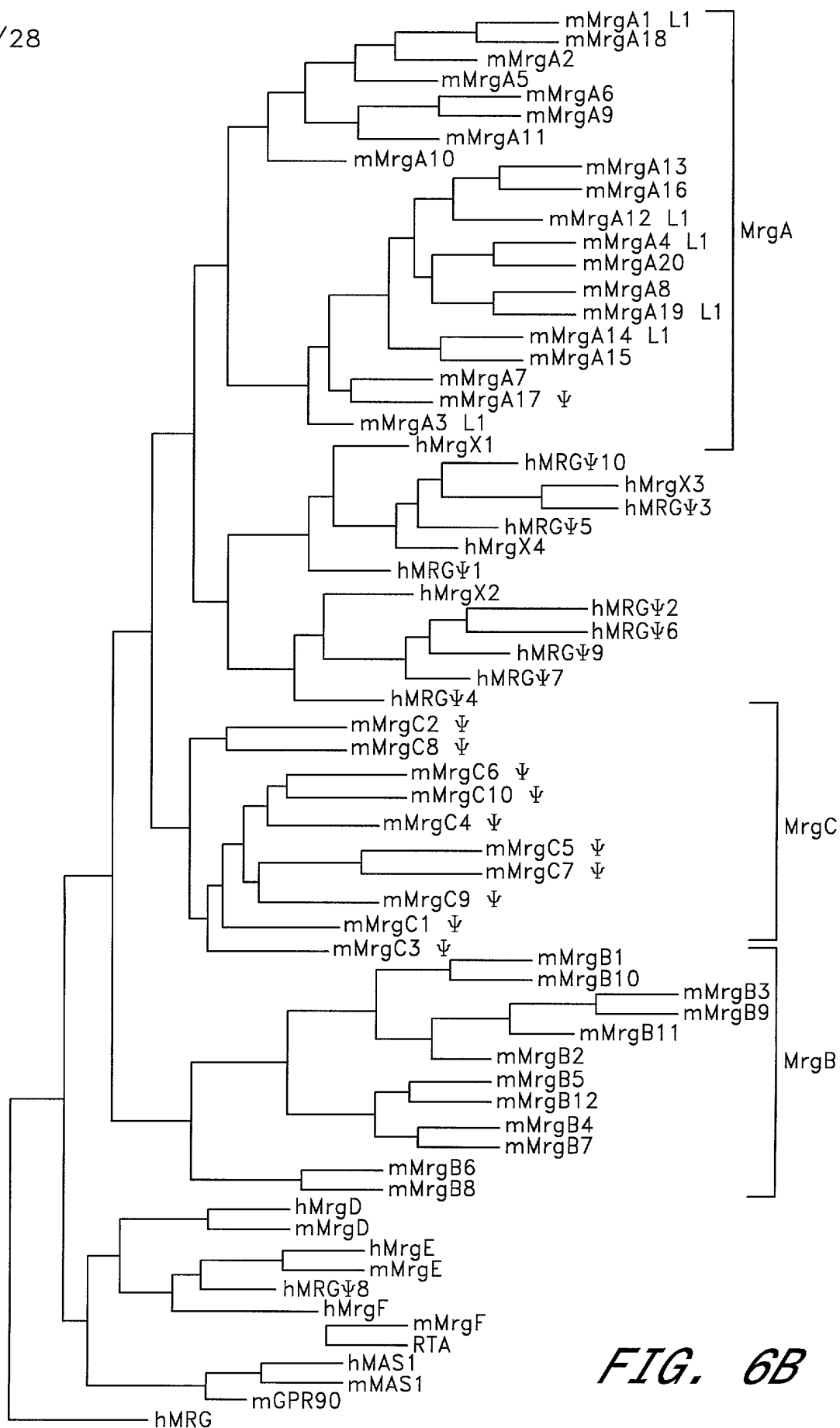


FIG. 6B

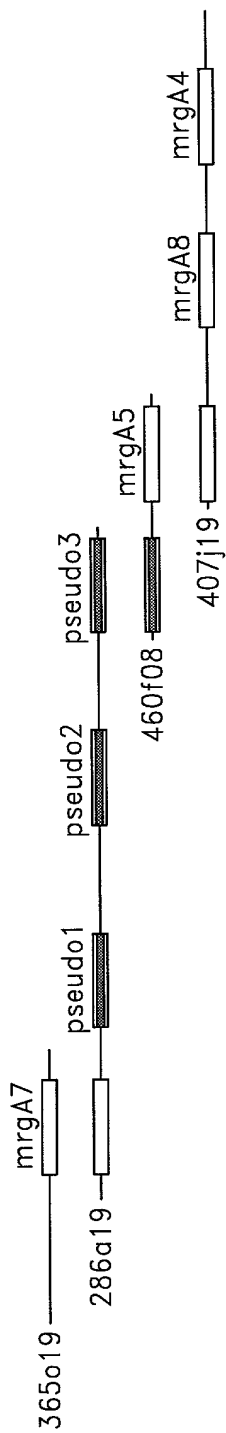


FIG. 6C

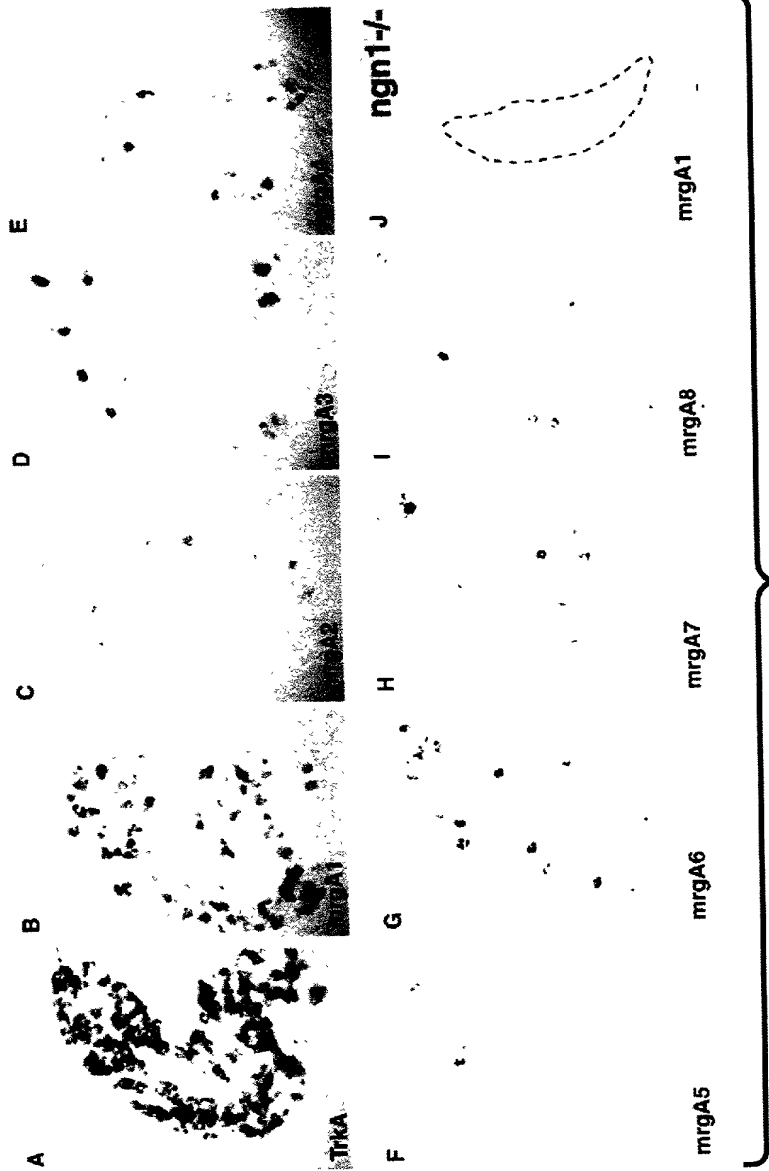
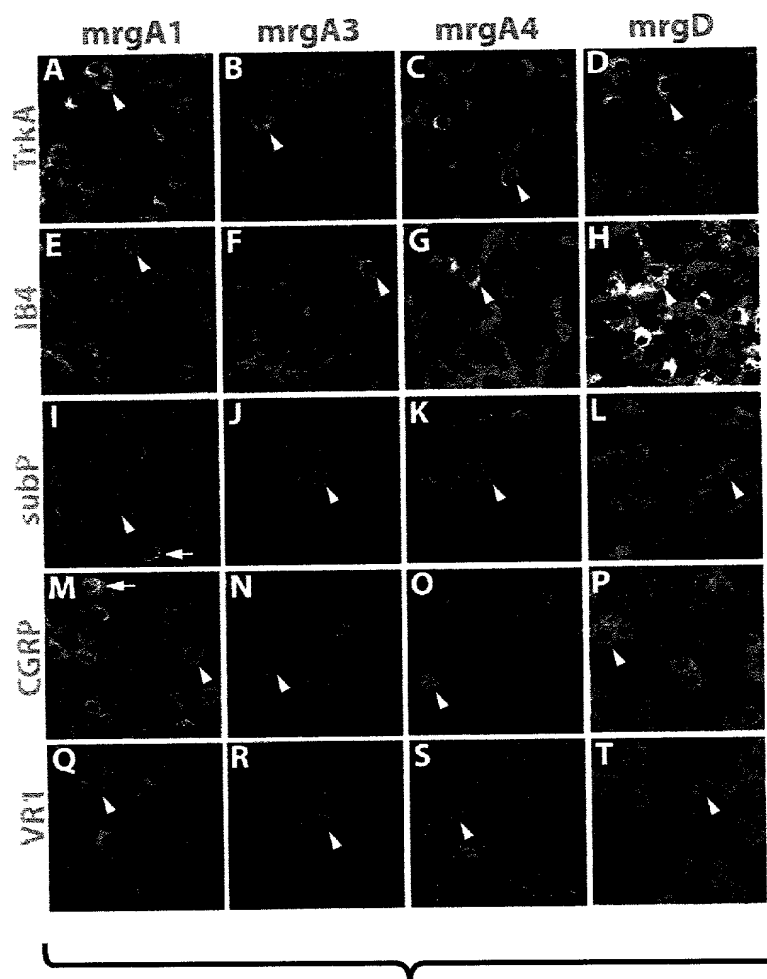


FIG. 7

*FIG. 8*

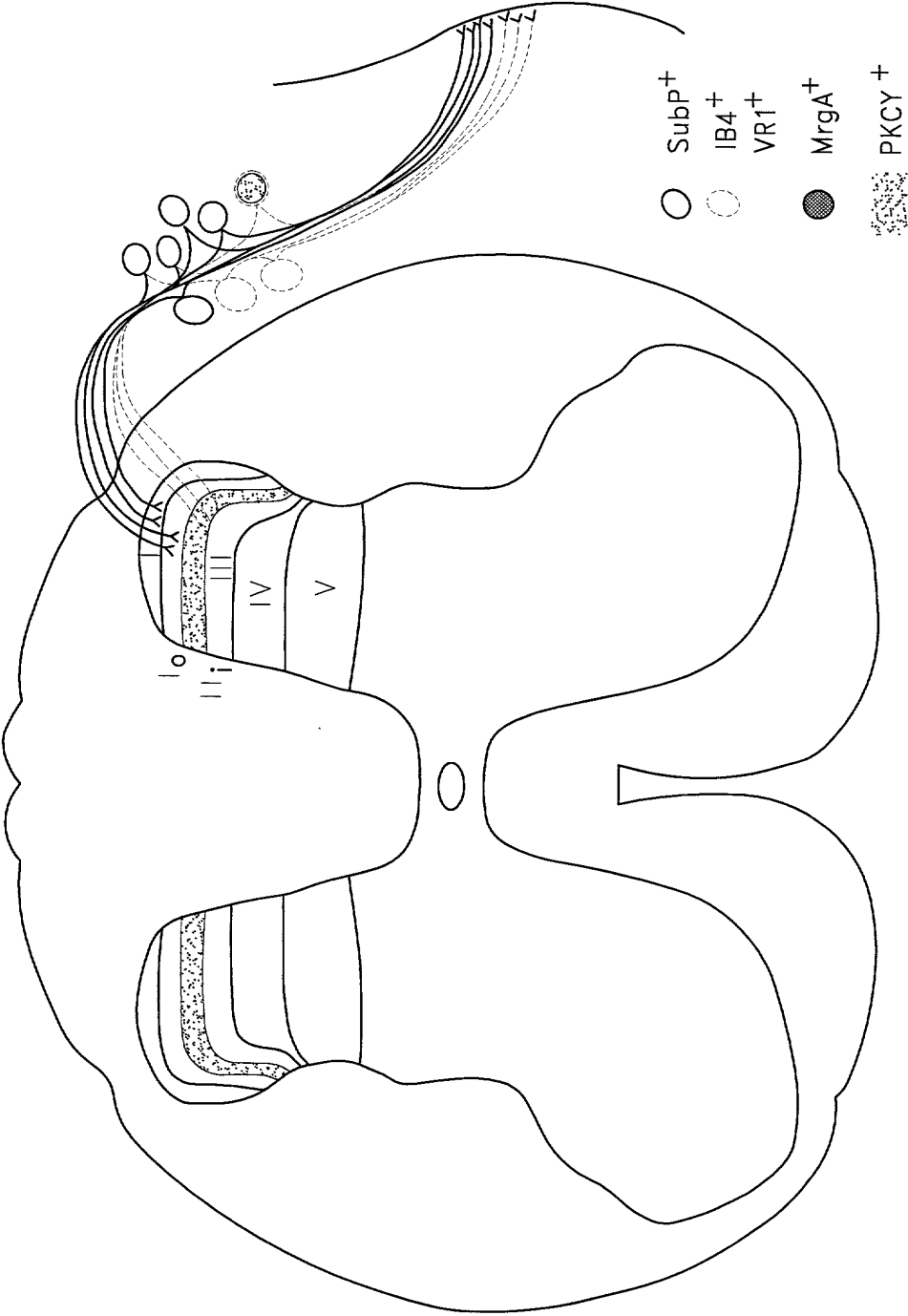


FIG. 9

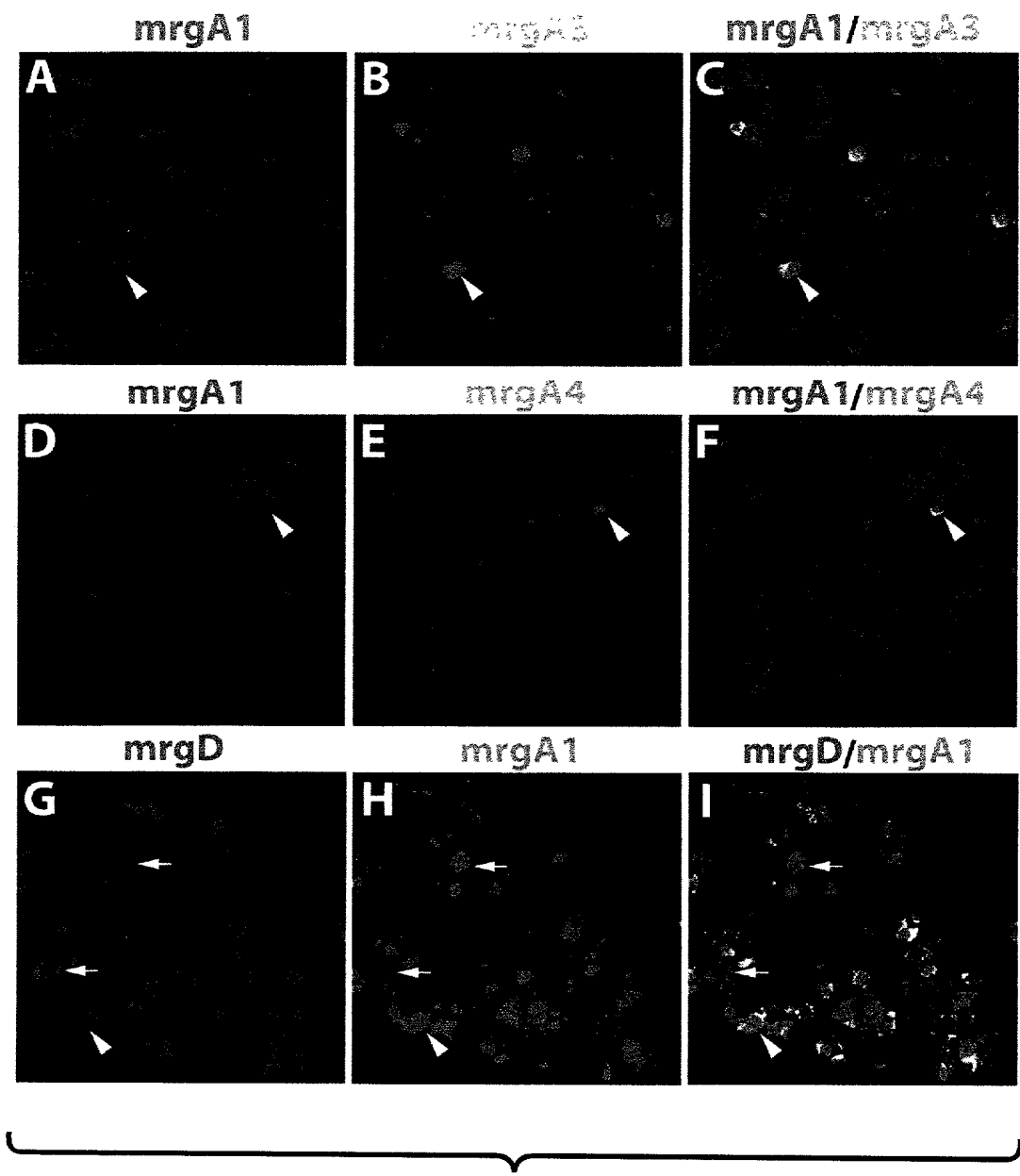


FIG. 10

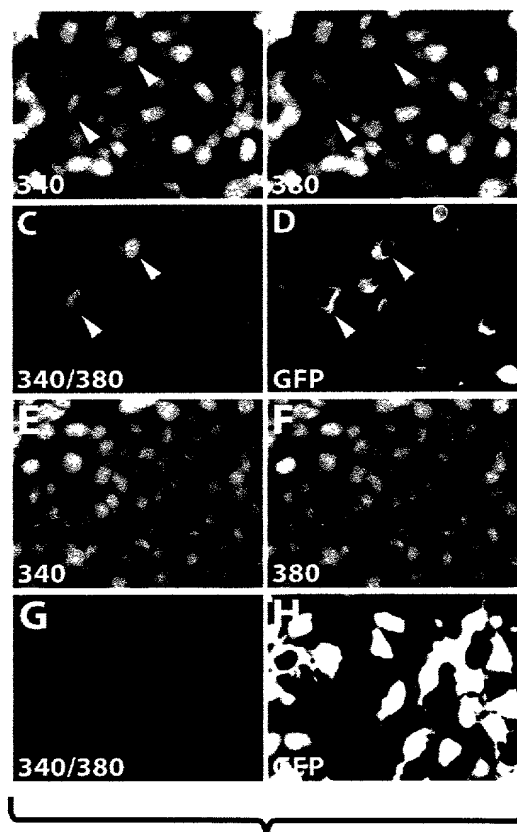
*FIG. 11*

FIG. 12A

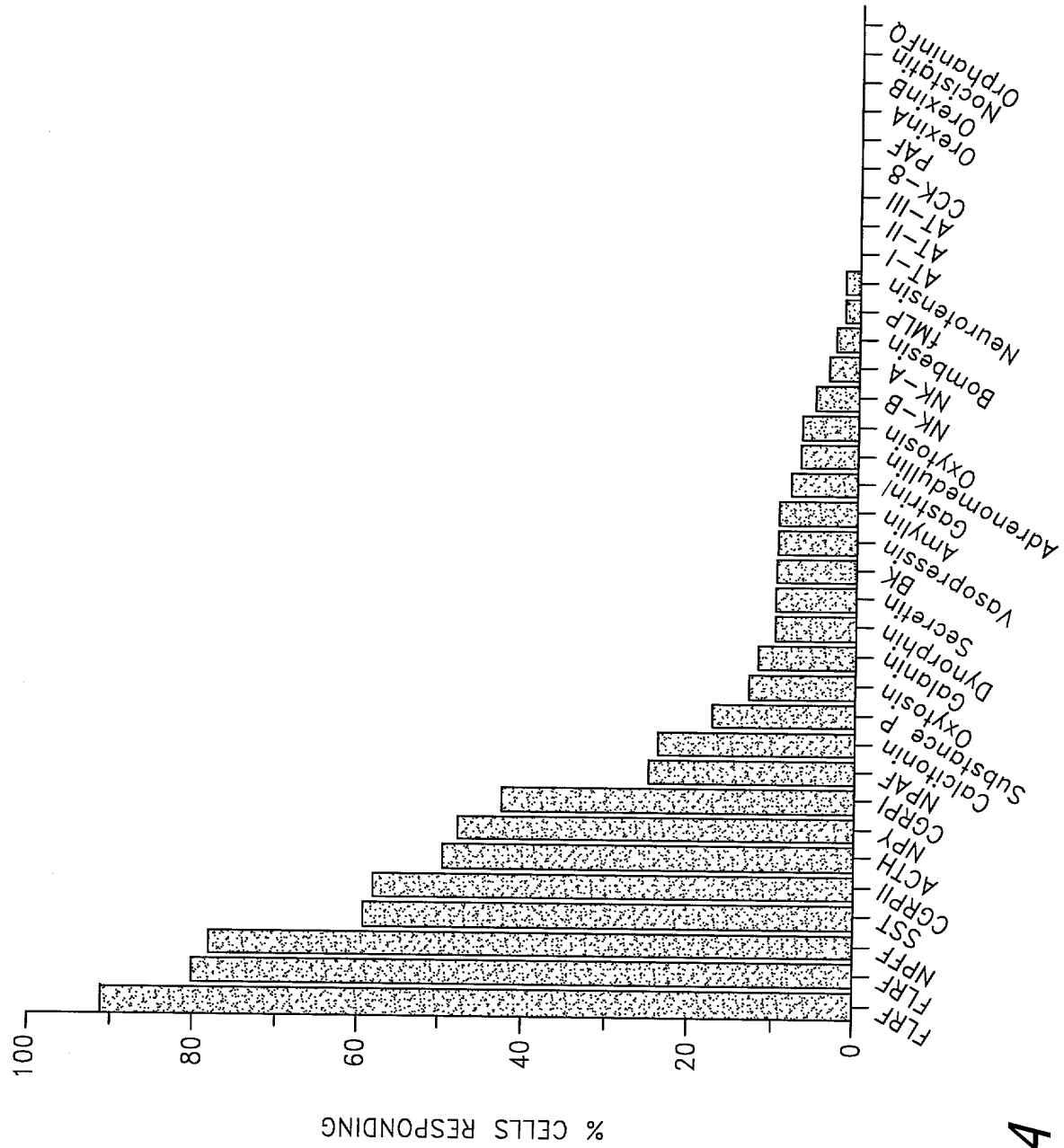


FIG. 12A

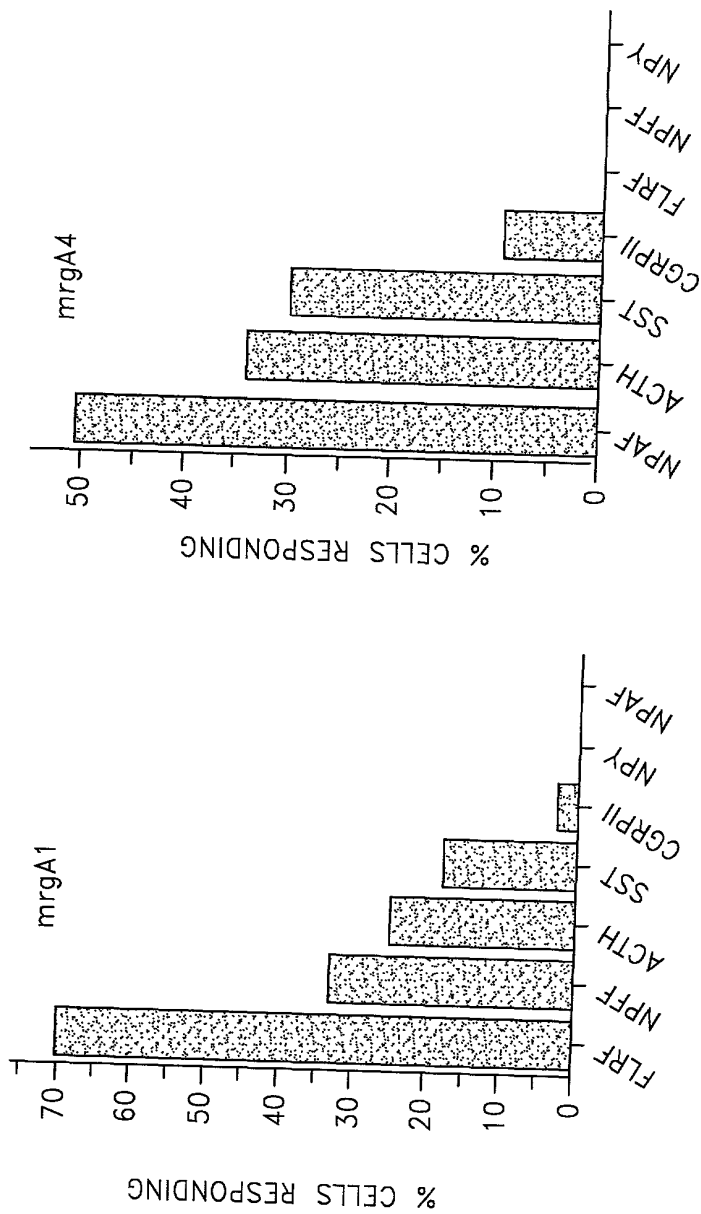


FIG. 12B

FIG. 12C

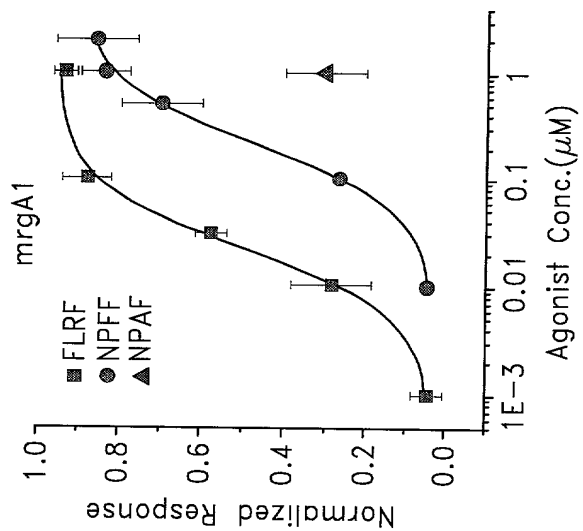


FIG. 12D

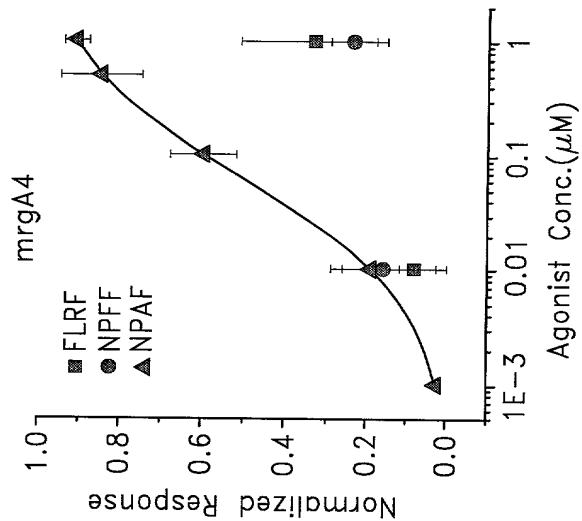


FIG. 12E

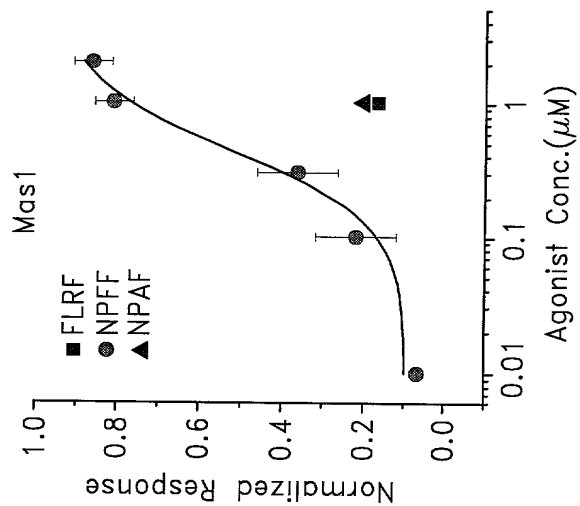


FIG. 12F

mMrgB1

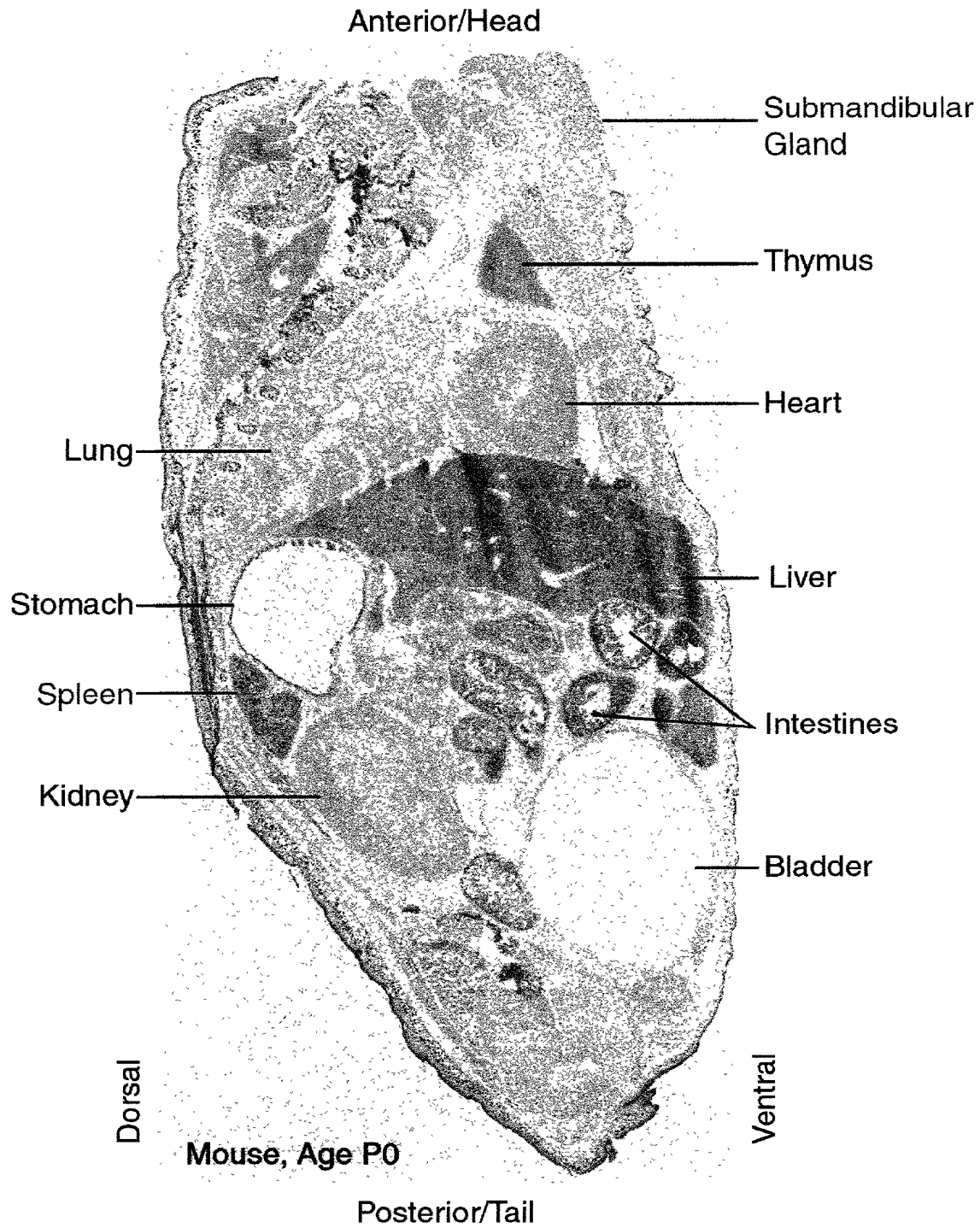


FIG. 13

mMrgB1

Skin

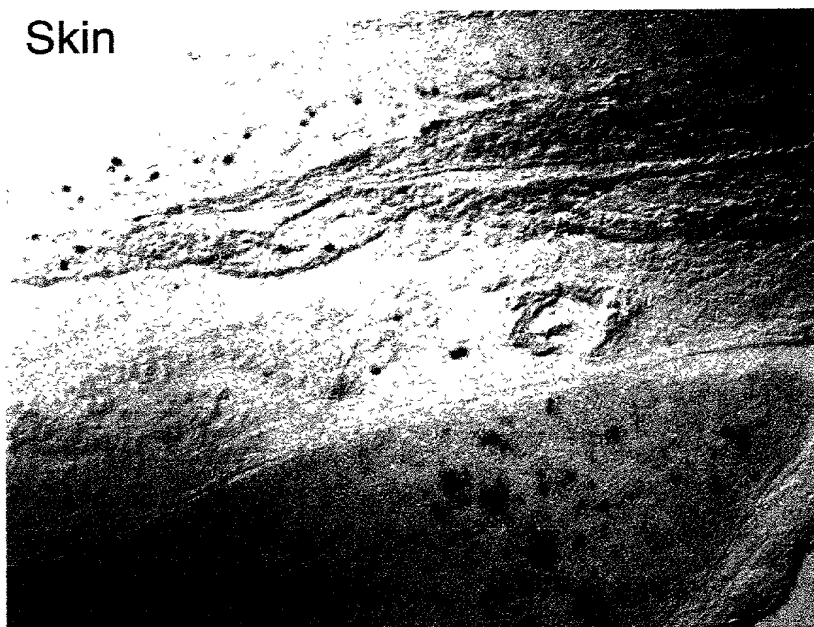


FIG. 14

FIG. 15

mMrgD in Adult DRG

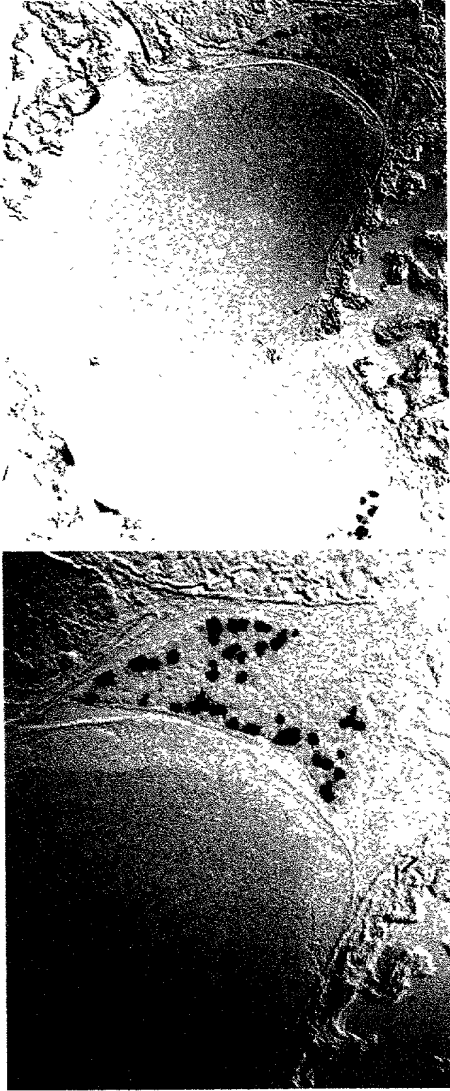


FIG. 15